

is often named, the Eight Mile Creek, in Cullman County, northern Alabama. The soil is alluvial sand, in some places rocky, and occasionally overflowed. Its characteristic associate is *Quercus Prinus* L., a species not inhabiting the xerophile upland woods of this locality, but confined to the steeper rocky slopes and cliffs approaching the bed of the river and the narrow tracts of lowland for some distance. It is in this lowland that both species meet, but *Q. bernardiensis* never rises up the slopes or cliffs with *Q. Prinus*, being strictly confined to the afore-mentioned lowland tract, nor barring one exception is it found in the long tracts of somewhat broadened lowlands with adjacent, more or less gentle slopes, where, likewise, *Q. Prinus* is not found. Others, like *Q. alba*, *stellata*, and *velutina*, are not characteristic associates because they are met with almost everywhere within this locality, while the associated species *Q. nigra* L. and *hybrida*, *Carpinus caroliniana*, *Ostrya virginiana*, *Liquidambar Styraciflua*, *Nyssa sylvatica* are in so far characteristic as they indicate the mesophile character of the species.

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## ECOLOGICAL SOCIETY OF AMERICA

### THE PRESERVATION OF OUR NATIVE PLANTS

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The agencies which are active in the destruction of our native plants have been increased remarkably within the last few years. The building of railroads, of good roads for automobiles, and of canals have materially altered the country-side some distance on both sides of the rights of way. The black clouds of smoke from the freight engines have destroyed many fine areas of woodland; individual trees worthy of preservation on account of their rarity, or historic interest, have not escaped the influence of the fine carbon particles, which fill up the breathing pores of the leaves. Many trees have also suffered from the evil effects of the noxious gases, which are products of the incomplete combus-

tion of the soft coal, used on the engines. Near Philadelphia, if one ascends an elevation in Fairmount Park, he can trace the location of the railroad lines by the palls of smoke which hang over them and are blown about with the change in the direction of the wind. There are some places in the park where the hands are blackened by taking hold of the leaves and branches of the nearby trees. The herbaceous vegetation suffers also, though in a lesser degree. With the increase in the number of industrial plants on the lower Schuylkill River, the grass and flowers planted for decorative effect in Bartram's Garden have been injured by the acids which have been washed down by the rain from the atmosphere to the plants beneath.

The construction of fire-lanes along the right of way of the railroads, as in New Jersey, under laws of the state, has occasionally caused the extermination of rare plants. I have in mind two small cedar swamps in which grew the grassy fern, *Schiazea pusilla*, and which have been cleared of undergrowth and of the trees to widen the fire protecting area running parallel to the tracks of the railroad.

The clearing of land for industrial purposes often leads to the extermination of plants worthy of preservation. In New Jersey, not far from Camden, there was a field that was blue with the fringed gentian, *Gentiana crinita*. The drainage of the field and its use for building purposes has destroyed completely a plant locality worthy of careful preservation.

It seems very difficult, notwithstanding the fact that an educational propaganda has been carried on for many years, to get our people to realize the necessity for the preservation of our wild flowers. Recently an interesting case has come to my attention. A florist in Philadelphia displayed this spring, two large bunches of the flowers of the "bog asphodel," *Helonias bullata*, which were bought from a vender, who had gathered them in the marshland of New Jersey. A remonstrance was made to the florist with the request that he refuse hereafter to buy such wild flowers. At the same time he was asked to discountenance further practices of this sort. How much good this plea will do, it will be hard to estimate. Another case of thoughtlessness came to my attention

a year ago. On one of our trolley cars riding in from the country were three women, loaded down with branches broken off our native flowering dogwood, *Cornus florida*. Attention was called to this ruthless destruction of one of our most ornamental native trees, but reference to their acts of vandalism was met with the request to mind one's own business. Automobile parties frequently are very destructive of the dogwood.

Just where the education of the public should begin it is hard to say. Children thoughtlessly believe any ground not strictly enclosed is open to the public and carry off flowers and break branches, etc. In Philadelphia, a neighbor was much annoyed by the depredations of small girls and boys. He had planted snowdrops in his grass plot, and whenever flowers appeared early in the spring, he found that many school children picked them to carry to their teachers. A shrub of *Xanthoceras sorbifolia* has had several branches broken off by children in search of the large green fruits, which appear in clusters on its upper branches. Another neighbor planted a row of peonies along the low side of her city yard. She was incensed by the theft of fine blooms from each one of her plants along the fence which was open to the depredations of the passerby. This illustrates that to start at the root of this evil, we must begin with the little children, even before they are five years old, for a little fellow five years old was found engaged in such thoughtless trespassing.

The Wild Flower Preservation Society has done wisely to begin its propaganda with the school children. The illustrated literature which has been issued from time to time, the framed colored pictures of flowers worthy of preservation and the lectures which have been given by the various members of the society, have done much good. Much remains to be accomplished to educate the rising generation to appreciate the natural and beautiful and to realize that other people have rights which ought to be respected. Also that plants on private grounds, even if accessible, are not public property. The proper inculcation of these principles will do much toward the preservation of wild flowers. In conclusion, one suggestion comes to me, as a method of reaching the public at large, and that is the preparation of lantern

slides which could be thrown on the screen at performances of every moving picture establishment throughout the United States, calling attention to the necessity and desirability of the preservation of our wild fauna and flora, especially our native plants.

The following is a list of plants, which in the opinion of the writer, are most worthy of preservation and which are liable to extinction, if not carefully protected.

- Climbing Fern—*Lygodium palmatum*.  
 Walking Fern—*Camptosorus rhizophyllus*.  
 Maiden Hair—*Adiantum pedatum*.  
 Tree Club Moss—*Lycopodium obscurum*.  
 Ground Pine—*Lycopodium complanatum*.  
 Indian Turnip—*Arisaema triphyllum*.  
 Bog Asphodel—*Helonias bullata*.  
 Grape Hyacinth—*Muscari botryoides*.  
 Moccasin Flower—*Cypripedium acaule*.  
 Showy Orchid—*Orchis spectabilis*.  
 Swamp Pogonia—*Pogonia ophioglossoides*.  
 Mistletoe—*Phoradendron flavescens*.  
 Calopogon—*Limodorum tuberosum*.  
 Sweet Bay—*Magnolia virginiana*.  
 Columbine—*Aquilegia canadensis*.  
 Blood-root—*Sanguinaria canadensis*.  
 Blue Lupine—*Lupinus perennis*.  
 Dogwood—*Cornus florida*.  
 Pinxter-flower—*Azalea nudiflora*.  
 Rhododendron—*Rhododendron maximum*.  
 Trailing Arbutus—*Epigaea repens*.  
 Laurel—*Kalmia latifolia*.  
 Fringed Gentian—*Gentiana crinita*.  
 Ground Pink—*Phlox subulata*.  
 Bluebells—*Mertensia virginica*.  
 Scarlet Painted-cup—*Castilleja coccinea*.  
 Cardinal flower—*Lobelia cardinalis*.